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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,241	11/26/2003	Stephen C. Olson	02243-039001	6105

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Phyllis K. Kristal  
Fish & Richardson P.C.  
1425 K Street, N.W.  
Washington, DC 20005-3500

EXAMINER
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PAHNG, JASON Y

ART UNIT	PAPER NUMBER
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3725

DATE MAILED: 01/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/721,241	<b>Applicant(s)</b> OLSON, STEPHEN C.	
	<b>Examiner</b> Jason Y. Pahng	<b>Art Unit</b> 3725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 16-29 and 49-74 is/are pending in the application.
- 4a) Of the above claim(s) 55-74 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16-29 and 49-54 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

Newly submitted claims 55-74 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claims 55-74 is a subcombination. The previously examined combination group of claims as claimed does not require the particulars of the subcombination as evidenced by claim 16. For example, claim 16 does not require a feed inlet including a gas inlet bore and a material funnel as required by claim 55.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 55-74 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

This Office action is final therefore the restriction requirement and withdrawal of claims 55-74 are made FINAL.

### ***Claim Objections***

The amendment overcomes the claim objections made in the last Office action.

Claim 53 is objected to because although claim 53 depends on claim 50, there is no claim 50. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The amendment overcomes the claim rejections under 35 U.S.C. 112 made in the last Office action.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 16, 19, 22, 25-27, and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Trost (US 3,229,918).

With regard to claims 16 and 22, Trost discloses a fluid energy mill including:

1. a one-piece manifold (11); after several pieces are assembled;
2. the finally assembled one-piece manifold including a grinding chamber (44) and a feed inlet including a feed gas inlet (78) and a material funnel (74);
3. the finally assembled one-piece manifold including a gas inlet (79) and an outlet (35) formed in the rear face; and
4. a cover (84). The manufacturing or assembling process for the fluid energy mill, whether the manifold is assembled in one piece or two piece, is not germane to the patentability of the apparatus in an apparatus claim.

With regard to claims 19, Trost discloses a cycloid-shaped grinding chamber (44, Figure 1).

With regard to claim 20, Trost discloses a protective pocket (56).

With regard to claim 21, Trost discloses a barrier (55) at a region where the material enters the grinding chamber.

With regard to claims 25 and 26, Trost discloses feed inlet oriented at an angle to a line at a horizon or boundary of an upper surface of the manifold.

With regard to claim 26, one of the lines at a horizon or boundary of an upper surface of the manifold discloses 30 degrees (Figure 1). In fact, all angles from 1 to 90 degrees are disclosed.

With regard to claim 27, Trost discloses a feed inlet (46) positioned tangent to a second radius (8 o'clock direction, Figure 1) larger than a first radius (6 o'clock direction, Figure 1).

With regard to claim 29, Trost discloses an outlet (35) positioned near the center.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trost (US 3,229,918) in view of Coombe et al. (US 3,840,188). Trost discloses a

non-circular seal (87), but does not disclose a groove. In a closely related art, Coombe discloses a fluid energy mill with a groove for a seal in order to improve sealing.

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to provide Trost with a groove for a seal in order to improve sealing, as taught by Coombe.

Claims 23, 24, 49, and 51-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trost (US 3,229,918) in view of Fay (US 3,559,895).

Claim 23 calls for an intersection of the feed gas inlet and the material funnel to form an elliptical hole. In a closely related art, Fay discloses a fluid energy mill with an elliptical hole (Figure 11) in order to accommodate a slanted hopper (77). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to provide Trost with an elliptical hole in order to accommodate a slanted hopper, as taught by Fay.

Claims 24 and 49 call for a venturi formed in a position between the grinding chamber and the feed gas inlet. Fay discloses a venturi (76, Figure 11) in order to provide a diverging nozzle position between a grinding chamber and a feed gas inlet. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to provide Trost with a venturi in order to provide a diverging nozzle position between a grinding chamber and a feed gas inlet, as taught by Fay.

Claims 51-54 call for a pair of nozzles with an outlet formed in positions adjacent to the grinding chamber. Fay discloses a pair of nozzles (88, Figure 13) with an outlet formed in positions adjacent to the grinding chamber in order to supply additional

grinding fluid. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to provide Trost with a pair of nozzles with an outlet formed in positions adjacent to the grinding chamber in order to supply additional grinding fluid, as taught by Fay.

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Trost (US 3,229,918) in view of Andrews (US 2,032,827). Claim 28 calls for a gas to enter the grinding chamber tangent to a gas inlet radius extending from the center, the gas inlet radius being smaller than the first radius. Andrews discloses a gas entering (25) a grinding chamber tangent to a gas inlet radius extending from the center, the gas inlet radius being smaller than a first radius (Figure 1) in order to provide both a forward tangential component and inward component (page 5, lines 25-35) to create high velocity vortex. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to provide Trost with a gas entering a grinding chamber tangent to a gas inlet radius extending from the center, the gas inlet radius being smaller than a first radius, in order to provide both a forward tangential component and inward component to create high velocity vortex, as taught by Andrews.

### ***Response to Arguments***

Applicant's arguments filed on November 4, 2005 have been fully considered but they are not persuasive. Applicant has one major argument regarding claim 16.

With regard to claim 16, Applicant argues that Trost does not disclose a one-piece manifold. The fact is Trost discloses a one-piece manifold. For example, one

may ask, after a cellular phone has dropped on the ground, "Is your cellular phone in one-piece?" The answer is yes, if it has not been broken into two or more pieces.

There are no new additional arguments regarding the rest of the claims.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Y. Pahng whose telephone number is 571 272 4522. The examiner can normally be reached on 9:00 AM - 7:00 PM, Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached on 571 272 4419. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JYP



**DERRIS H. BANKS**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 3700**